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**COMPARATIVE ANALYSIS ON THE PROFITABILITY  
DETERMINANTS OF LOCAL AND FOREIGN ISLAMIC  
BANKS IN MALAYSIA**

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UNIVERSITI UTARA MALAYSIA**

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By

**SALMIAH BINTI SULIMAN**



# UUM

**Universiti Utara Malaysia**

*Research Paper Submitted to the  
Othman Yeop Abdullah Graduate School of Business  
Universiti Utara Malaysia,  
In Partial Fulfillment of the Requirement for the  
Master in Islamic Finance and Banking*

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## ABSTRACT

The Malaysian Islamic banking industry has recorded the declining on their profitability performance for both Local and Foreign Islamic banks since past few years. These decreasing might emerge from various external and internal environment forces of Islamic banks. The main objective of this study is to identify the determinants that could influence the Local Islamic banks and Foreign Islamic bank's profitability in Malaysia. The dependent variable used in this study is Return on Asset (ROA) meanwhile the independent variables consists of external and internal determinants which are Gross Domestic Products (GDP) and Inflation (INF) for external determinants and Capital Adequacy Ratio (CAR), Asset Quality Ratio (ASQ), Liquidity Ratio (LQR) as well as Bank Size (SIZE) for internal determinants. The study employed balance panel data on 16 Islamic banks in Malaysia which consists of 10 Local Islamic banks (70 observations) and 6 Foreign Islamic banks (42 observations) over the period of 2010 until 2016. The study found that external and internal determinants, namely GDP, INF, and CAR have a significant impact on the of Local Islamic bank's profitability in Malaysia. Meanwhile, for the Foreign Islamic banks in Malaysia, the external and internal determinants namely INF, CAR, ASQ, and SIZE are significant toward their profitability. The findings from this study could provide a comprehensive analysis on the profitability determinants that could influence the profitability of the Local Islamic banks and Foreign Islamic banks in Malaysia. The findings also could contribute the valuable information as an essential guide to the Islamic bank's management team to evaluate the bank profitability in Malaysia.

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**Keywords:** Islamic banking, local Islamic banks, foreign Islamic banks, profitability, external and internal determinants

## ABSTRAK

Industri Perbankan Islam Malaysia telah mencatatkan penurunan prestasi keuntungan bagi Bank Islam Tempatan dan Bank Islam Asing sejak beberapa tahun kebelakang. Penurunan keuntungan ini mungkin disebabkan oleh pengaruh luaran dan juga dalaman terhadap bank Islam. Tujuan kajian ini dijalankan adalah untuk mengenal pasti penentu yang boleh mempengaruhi keuntungan Bank Islam Tempatan mahupun Bank Islam Asing di Malaysia. Pemboleh ubah bersandar yang digunakan dalam kajian ini adalah Pulangan Atas Asset (ROA) manakala, pemboleh ubah bebas terdiri daripada penentu luaran dan dalaman iaitu Keluaran Dalaman Kasar (GDP) dan Inflasi (INF) adalah penentu luaran dan Nisbah Kecukupan Modal (CAP), Nisbah Kualiti Aset (ASQ), Nisbah Kecairan (LQR) juga Ukuran Bank (SIZE) adalah penentu dalaman. Kajian ini menggunakan data panel terhadap 16 bank Islam di Malaysia yang terdiri daripada 10 Bank Islam Tempatan (70 pemerhatian) dan 6 Bank Islam Asing (42 pemerhatian) bagi tempoh 2010 sehingga 2016. Hasil kajian mendapati bahawa penentu-penentu luaran dan dalaman iaitu GDP, INF dan CAR mempunyai kesan yang signifikan terhadap keuntungan Bank Islam tempatan di Malaysia. Sementara itu, penentu-penentu luaran dan dalaman iaitu INF, CAR, ASQ dan SIZE mempunyai kesan yang signifikan terhadap keuntungan Bank Islam Asing di Malaysia. Hasil daripada kajian ini mampu memberikan analisis yang komprehensif mengenai penentu keuntungan yang boleh mempengaruhi keuntungan Bank Islam Tempatan dan Bank Islam Asing di Malaysia. Hasil kajian ini juga dapat memberi maklumat yang berharga kepada pasukan pengurusan bank-bank Islam sebagai panduan penting untuk mereka menilai keuntungan bank di Malaysia.

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**Kata kunci:** Perbankan Islam, Bank Islam Tempatan, Bank Islam Asing, keuntungan, penentu luaran dan dalaman

First and foremost, I would like to express my gratitude to Allah (SWT) for giving me His blessings in terms of health, strength, knowledge, patience, and perseverance to complete this research paper. Sincerest gratitude is extended to my supervisors, Dr. Raziah Md Tahir for her professional and relentless guidance, coaches, valuable suggestions and positive comments while doing this research paper. My deepest appreciation also goes to Dr Alias Mat Nor and Dr. Hydzulrifli Haji Hashim for their sharing ideas, guidances and advices in a way to complete this research paper.

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## LIST OF ABBREVIATIONS

ASQ	Asset Quality Ratio
BNM	Bank Negara Malaysia
CAR	Capital Adequacy Ratio
EF	Efficiency Structure
FIB	Foreign Islamic Bank
FEM	Fixed Effects Model
GDP	Gross Domestic Products
INF	Inflation
LIB	Local Islamic Bank
LQR	Liquidity Ratio
LUTH	Lembaga Urusan Tabung Haji
RMP	Relative Market Power Theory
ROA	Return on Asset
SCP	Structure-Conduct Performance
SIZE	Bank Size

Profitability constituted one of the essential element in determining the success of a bank. Profitability derived from two words, profit and ability which imply the strength and capabilities of the business entity to generate their income (Tulsian, 2014). Similarly, Idris et al. (2011) highlighted in their study that it is essential for the banking sector to have good profitability as the mean to stabilize their banking structure. The statement supported by Menicucci and Paolucci (2016) which justified that the essential of bank's profitability could be acknowledged from macro and micro levels

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Introduction**

Profitability constituted one of the essential element in determining the success of a bank. Profitability derived from two words, profit and ability which imply the strength and capabilities of the business entity to generate their income (Tulsian, 2014). Similarly, Idris et al. (2011) highlighted in their study that it is essential for the banking sector to have good profitability as the mean to stabilize their banking structure. The statement supported by Menicucci and Paolucci (2016) which justified that the essential of bank's profitability could be acknowledged from macro and micro levels

Hence, it is crucial for the banking institutions to identify the determinants that may give impact on the bank's profit. This study seeks to compare the profitability determinants of Local and Foreign Islamic bank in Malaysia that will be covering the external and internal determinants as the focal point of this study.

#### **1.1 Background of the Study**

Primarily, banks play a fundamental role in the financial system as it contributes to the economic development. According to Hassan et al. (2011), financial industry performance will contribute to the economic growth meanwhile its incompetence will cause a negative impact on the economic development. Thus, it is believed that banks are the important player in ensuring the financial system stability and due to that, every



## REFERENCES

- Abduh, M., and Idrees, Y. (2013). Determinants of Islamic Banking Profitability in Malaysia. *Australian Journal of Basic and Applied Sciences*, Vol 7(2), 204-210.
- Abduh, M., Omar, M.A., & Mesic, E. (2013). Profitability Determinants of Islamic and Conventional Banks in Malaysia: A Panel Regression Approach. *Terengganu International Finance and Economics Journal*, Vol 3(1), 1-7.
- Adeolu, M.A. (2014). Asset Quality and Bank Performance: A Study of Commercial Banks in Nigeria. *Research Journal of Finance and Accounting*, Vol 5(18), 39-44.
- Adnan, T. (2012). The impact of assets quality management on profitability and shareholders' value - the Case of Jordanian Listed Commercial Banks (2001-2012). *American Academic & Scholarly Research Journal*.
- Ahmad, R. (2016). A Study of Relationship between Liquidity and Profitability of Standard Chartered Bank Pakistan: Analysis of Financial Statement Approach. *Global Journal of Management and Business Research: Finance* Vol 16(1), 77-82.
- Ahmad, S., & Rahman, A. R. A. (2012). The efficiency of Islamic and conventional commercial banks in Malaysia. *International Journal of Islamic and Middle Eastern Finance and Management*, Vol 5(3), 241-263.
- Ali, M. (2018). Determining the Factors of Profitability in Islamic and Conventional Banks of Pakistan; A Management Perspective. *SEISENSE Journal of Management*, Vol 1(1), 9-21.
- Al-Mamun, A., Yasser, Q. R., Entebang. H., Rahman, M. A., Nathan, T. M., & Mansor, S. A. (2014). Comparison between Islamic and Conventional Banking: Evidence from Malaysia. *International Journal of Islamic Banking & Finance*, Vol 4(1), 2-14.
- Almazari, A. A. (2014). Impact of Internal Factors on Bank Profitability: Comparative Study between Saudi Arabia and Jordan. *Journal of Applied Finance & Banking*, Vol 4(1), 125-140.
- Al Nasser, S. A. S., & Muhammed, J. (2013). Introduction to history of Islamic banking in Malaysia. *Humanomics*, Vol 29(2), 80 - 87.

- Amzal, C. (2016). The Impact of Macroeconomic Variables on Indonesia Islamic Banks Profitability. *Jurnal Ekonomi dan Bisnis Islam*, Vol 2(1), 71-86.
- Ani, W.U., Ugwunta, D.O., Ezeudu, I. J., & Ugwuanyi, G. O. (2012). An Assessment of the Determinants of bank Profitability in Nigeria: Bank Characteristics Panel Evidence. *Journal of Accounting and Taxation*, Vol 4(3), 38- 43.
- Ashraf, M., Haider, Z., & Sarwar, M. B. (2017). Bank Specific and Macroeconomic Determinants Impact on Banks Profitability: Evidence from Asian Countries. *International Journal of Sciences: Basic and Applied Research (IJSBAR)* (2017) Vol33(3), 187-199.
- Aslam, M. K., Inamullah & Ismail, M.(2016). Determinants Affecting the Profitability of Islamic Banks: Evidence from Pakistan. *International Journal of Operations and Logistics Management*. Vol 5(2), 115-127.
- Athanasoglou, P. P., Brissimis, S. N. & Delis, M. D. (2005). *Bank-Specific, Industry Specific and Macroeconomic Determinants of Bank Profitability*. Working Paper No. 25. Economic Research Department, Bank of Greece.
- Athanasoglou, P., Delis, M., & Staikouras, C. (2006). Determinants of bank profitability in the South Eastern European region. Bank of Greece, Athens, Greece, Working Paper No. 47, September.
- Bagheri, A., & Midi, H. (2009). Robust Estimations as a Remedy for Multicollinearity Caused by Multiple High Leverage Points. *Journal of Mathematics and Statistics*, Vol 5(4), 311-321.
- Baltagi, B. H. (2000). *Econometric Analysis of Panel Data* (2nd ed.). New York: John Wiley & Sons.
- Bank Negara Malaysia. (2009). Liberalisation of the Financial Sector, Central Bank of Malaysia, Kuala Lumpur, available at: <http://www.bnm.gov.my> (accessed 28 February 2018).
- Bank Negara Malaysia. (2017). Financial Stability. Kuala Lumpur: Bank Negara Malaysia.
- Bashir, A. M. (2003). Determinants of the profitability in Islamic banks: some evidence from the Middle East. *Islamic Economic Studies*, Vol 11(1), 31-57.
- Bekaert, G., Harvey, C. R., & Lundblad, C. (2005). Does financial liberalization spur growth?. *Journal of Financial Economics*, Vol 77(1), 3-56.

- Berger, A. (1995). The Profit-Structure Relationship in Banking. Tests of Market Power and Efficiency-Structure Hypothesis. *Journal of Money, Credit and Banking*, Vol 27(2), 404-431.
- Bryman, A. (2001). *Social Research Methods*. New York: Oxford University Press.
- Chen, S. H. & Liao, C. C. (2011). Are foreign banks more profitable than domestic banks? Home- and host-country effects of banking market structure, governance, and supervision. *Journal of Banking & Finance*, Vol 35(4), 819–839.
- Choong, Y. V., Thim, C. K., & Kyzy, B. T. (2012). Performance of Islamic Commercial Banks in Malaysia: An Empirical Study. *Journal of Islamic Economics, Banking and Finance*, Vol 8(2), 67-80.
- Chua, Z. (2013). Determinants of Islamic Bank's Profitability in Malaysia. Available at SSRN 2276277.
- Cohen, L., Manion, L. & Morrison, K. (2011). *Research Methods in Education*. (7th ed). London: Routledge.
- Dabiri, M.A., Mohd Yusof, R., & Abd Wahab, N. (2017). Profitability and Liquidity of Islamic Banks in the United Kingdom. *Asian Journal of Multidisciplinary Studies*, Vol 5(4), 66-72.
- Dahiyat, A. (2016). Does Liquidity and Solvency Affect Banks Profitability? Evidence from Listed Banks in Jordan. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, Vol 6(1), 35–40.
- Daniel. E. (2016). The Usefulness of Qualitative and Quantitative Approaches and Methods in Researching Problem-Solving Ability in Science Education Curriculum. *Journal of Education and Practice*. Vol 7(15), 91-100.
- Elyrah, Y.(2014). Financial Liberalization, Reforms and Bank Performance: Evidence from Malaysian Islamic Banks. *IOSR Journal of Economics and Finance (IOSR-JEF)*, Vol 3(2), 31-39.
- Fitch Connect Database, Fitch Solution LTD (FITCH).
- Flamini, V., Mcdonald, C., & Schumacher, L. (2009). *The determinants of commercial bank profitability in Sub-Saharan Africa*. IMF Working Paper, 1-30.
- Francis, M. E. (2013). Determinants of commercial bank profitability in Sub-Saharan Africa. *International Journal of Economics and Finance*, Vol 5(9), 134-147.



- Glaser, B.G. (1963). Retreading research materials: the use of secondary data analysis by the independent researcher. *American Behavioural Science*, Vol 6(10), 11-14.
- Gogtay, N.J., & Thatte, U.M. (2017). Principles of Correlation Analysis. *Journal of The Association of Physicians in India*. Vol 65, 78-81.
- Green, E., Tull, D.S. & Albaum, G. (1988). *Research for Marketing Decisions*, 5th edn, Prentice-Hall, Inc., Englewood Cliffs, NJ.
- Gunes, N. (2014). Profitability in Turkish Banking Sector: Panel Data Analysis (The period 1990-1999). *Journal of Economic and Social Thought*, Vol 1(1), 15-26.
- Hadriche, M. (2015). Banks Performance Determinants: Comparative Analysis between Conventional and Islamic Banks from GCC Countries. *International Journal of Economics and Finance*, Vol 7(9), 169-177.
- Hair, Jr. J. F., Black, W. C., Babin, B. J. & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th ed.) Upper Saddle River, NJ: Prentice-Hall, USA.
- Hamdaoui, M., Zouari, A., & Samir Maktouf. (2016). The effect of financial liberalization on banking sector stability, *International Review of Applied Economics*, Vol 30(5), 644-667.
- Hassan, M. K., Sanchez, B., & Yu, J.-S. (2011). Financial development and economic growth: New evidence from panel data. *The Quarterly Review of Economics and Finance*, Vol 51(1), 88-104.
- Hassan, M. K., Sanchez, B., & Safa, M. F. (2013). Impact of financial liberalization and foreign bank entry on Islamic banking performance. *International Journal of Islamic and Middle Eastern Finance and Management*, Vol 6(1), 7 -42.
- Hazzi, O. A., & Kilani, M. I. A. (2013). The Financial Performance Analysis of Islamic and Traditional Banks: Evidence from Malaysia. *European Journal of Economics, Finance and Administrative Sciences*. Issue 57, 133-144.
- Husain, A., Affandi, S., & Shukur, N.A. (2015). The Internal Determinants of Islamic Banks' Profitability in Malaysia. *Journal of Basic and Applied Scientific Research*, Vol 5(7), 17-21.
- Idris, A. R., Asari, F. F. A. H., Taufik, N. A. A., Salim, N. J., Mustaffa, R., & Jusoff, K. (2011). Determinant of Islamic Banking Institutions' Profitability in Malaysia. *World Applied Sciences Journal* 12 (Special Issue on Bolstering Economic Sustainability), 01-07.



- Ismail, F., Abd. Majid, M. S., & Ab. Rahim, R. (2013). Efficiency of Islamic and conventional banks in Malaysia. *Journal of Financial Reporting and Accounting*, Vol 11(1), 92-107.
- Izhar, H., & Mehmet, A. (2007). Estimating the profitability of Islamic banking: evidence from bank Muamalat Indonesia. *Review of Islamic Economics*, Vol 11(2), 17-29.
- Jabbar, H. (2014). Determinants of Banks Profitability. *IOSR Journal of Business and Management (IOSR-JBM)*, Vol 16(1), 109-113.
- Kabajeh, M.A. M., Nu'aimat, S.M.A., & Dahmash, F.N. (2012). Relationship between the ROA, ROE and ROI Ratios with Jordanian Insurance Public Companies Market Share Prices. *International Journal of Humanities and Social Science*, Vol 2(11), 115-120.
- Kadioglu, E., Telceken, N., & Ocal, N. (2017). Effect of the Asset Quality on the Bank Profitability. *International Journal of Economics and Finance*, Vol 9(7), 60-68.
- Kadir, N. A., Jaffar, A., Abdullah, N. L., & Harun, N. (2013). *Comparison of the Financial Performance of Islamic & Conventional Bank in Malaysia During and After Economic Crisis*. International Conference on Mathematical Sciences and Statistics 2013 (ICMSS2013) AIP Conf. Proc. 1557, 247-251.
- Kamaruddin, B. H., & Mohd, R. (2013). Camel Analysis of Islamic Banking and Conventional Banking in Malaysia. *Business and Management Quarterly Review*, Vol 4(3&4), 81-89.
- Khan, R. A., & Ali, M. (2016). Impact of Liquidity on Profitability of Commercial Banks in Pakistan: An Analysis on Banking Sector in Pakistan. *Global Journal of Management and Business Research: Finance*, Vol 16(1), 53-60.
- Kira, A. R. (2013). The Factors Affecting Gross Domestic Product (GDP) in Developing Countries: The Case of Tanzania. *European Journal of Business and Management*, Vol 5(4), 148-158.
- Knezevic, A., & Dobromirov, D. (2016) The determinants of Serbian banking industry profitability. *Economic Research-Ekonomska Istrazivanja*, Vol 29(1), 459-474.
- Kok, Y. T., Tan, S. Y., Yong, M. S., & Tan, K. W. (2012). *The determinants of Islamic banks profitability in Malaysia* (Dissertation). University Tun Abdul Razak (UTAR), Malaysia

- Lederman, N. G., & Lederman, J. S. (2015). What Is a Theoretical Framework? A Practical Answer. *Journal of Science Teacher Education*, Vol 26 (7), 593-597.
- Martin, G., & Larson, SD. (2006). Descriptive Statistics and Graphical Displays. *Circulation*. 114, 76-81.
- Masood, O., & Ashraf, M. (2012). Bank-specific and macroeconomic profitability determinants of Islamic banks: The case of different countries. *Qualitative Research in Financial Markets*, Vol 4(2/3), 255-268.
- Masruki, R., Ibrahim, N., Osman, E., & Abdul Wahab, H. (2011). Financial Performance of Malaysian Founder Islamic Banks Versus Conventional Banks. *Journal of Business and Policy Research*, Vol 6(2). 67-79.
- Mehta, A., & Bhavani, G. (2017). What Determines Banks' Profitability? Evidence from Emerging Markets—the Case of the UAE Banking Sector. *Accounting and Finance Research*, Vol 6(1), 77-88.
- Menicucci, E., & Paolucci, G. (2016). The determinants of bank profitability: empirical evidence from European banking sector. *Journal of Financial Reporting and Accounting*, Vol 14(1), 86-115.
- Miller, M. (2013). Statistics and Measurement Concepts with OpenStat. Springer Science, pp 19-38. DOI 10.1007/978-1-4614-5743-5\_2.
- Mohd Aziz, N. I. (2017). Islamic Banking Profitability: Roles Played by Internal and External Banking Factors. *The Journal of Muamalat and Islamic Finance Research*, Vol 14(1), 23-38.
- Mokhtar, H. S. A., Abdullah, N., & Alhabshi, S. M. (2006). Efficiency of Islamic Banking in Malaysia: A Stochastic Frontier Approach. *Journal of Economic Cooperation*, Vol 27(2), 37-70.
- Mokhtar, H. S. A., Abdullah, N., & Alhabshi, S. M. (2008). Efficiency and Competition of Islamic banking in Malaysia, *Humanomics*, Vol 24(1), 28-48.
- Mokni, R. B. S., & Rachdi, H. (2014). Assessing the bank profitability in the MENA region. *International Journal of Islamic and Middle Eastern Finance and Management*, Vol 7(3), 305– 332.
- Mosab I. T., & Hassan I. H. (2017). Liquidity, Profitability and Solvency of UAE Banks: A Comparative Study of Commercial and Islamic Banks. *Academy of Accounting and Financial Studies Journal*, Vol 21(2), 1-15.

- Moussawi, C. E., & Obeid, H. (2011). Evaluating the productive efficiency of Islamic banking in GCC: A non-parametric approach. *International Management Review*, Vol 7(1), 10-21.
- Muda, M., Shaharuddin, A., & Embaya, A. (2013). Profitability Determinants and the Impact of Global Financial Crisis: A Panel Data Analysis of Malaysian Islamic Banks. *Research Journal of Finance and Accounting*, Vol 4(7), 121-130.
- Muda, M., Shaharuddin, A., & Embaya, A. (2013). Comparative Analysis of Profitability Determinants of Domestic and Foreign Islamic Banks in Malaysia. *International Journal of Economics and Financial Issues*, Vol 3(3), 559-569.
- Naeem, B. (2016). To Analyze the Comparative Financial Performance Analysis of Islamic and Conventional Banks in Pakistan. *Journal of Business & Financial Affairs*. Vol 6(1), 1-6.
- Naeem, M., Baloch, Q. B. B., & Khan, A. W. (2017). Factors Affecting Bank's Profitability in Pakistan. *International Journal of Business Studies Review (IJBSR)*. Vol 2(2), 33-49.
- Najjar, N. J. (2013). Can Financial Ratios Reliably Measure the Performance of Banks in Bahrain?. *International Journal of Economics and Finance*, Vol (5)3, 152-163.
- Njegomir, V., Stojic, D., & Markovic, D. (2011). Liberalisation, Market Concentration and Performance in The Non-Life Insurance Industry of Ex-Yugoslavia. *Ekonomisao Praksa Dbk. God Xx* (2011.), 21-40.
- Obamuyi, T. M. (2013). Determinants of Banks' Profitability in A Developing Economy: Evidence from Nigeria. *Organizations and Markets in Emerging Economies*, Vol 4(2), 97-111.
- Onuonga, S. M. (2014). The Analysis of Profitability of Kenya's Top Six Commercial Banks: Internal Factor Analysis. *American International Journal of Social Science*, Vol 3(5), 94-103.
- Pervan, M., Pelivan, I., & Arneric, J. (2015). Profit persistence and determinants of bank profitability in Croatia. *Economic Research- Ekonomska Istrazivanja*, Vol 28(1), 284-298.
- Petar, C., & Sanja, M. C. (2010). Skewness and Kurtosis in Function of Selection of Network Traffic Distribution. *Acta Polytechnica Hungarica*. Vol 7(2), 95-106.



- Rahaman, M. M., & Akhter, S. (2015). Bank-Specific Factors Influencing Profitability of Islamic Banks in Bangladesh. *Journal of Business and Technology (Dhaka)*, Vol 10(1), 21-36.
- Rahman, M. M., Hamid, M. K., & Khan, M. A. M. (2015). Determinants of Bank Profitability: Empirical Evidence from Bangladesh. *International Journal of Business and Management*, Vol 10(8), 135-150.
- Ramlan, H., & Adnan, M. S. (2016). The Profitability of Islamic and Conventional Bank: Case study in Malaysia. *Procedia Economics and Finance*, Vol 35, 359 - 367.
- Reyna, O.T. (2007). *Panel Data Analysis Fixed and Random Effects using Stata (v. 4.2)*. Data and Statistical Services, Princeton University. Retrieved from <http://www.princeton.edu/~otorres/Panel101.pdf>.
- Rivard, R. J., & Thomas, C. R. (1997). The effect of interstate banking on large bank holding company profitability and risk. *Journal of Economics and Business*, Vol 49, pp. 61-76.
- Rosen, D. H. (1999). *The diagnosis of collinearity: A Monte Carlo simulation study*. Ph.D. Dissertation, Department of Epidemiology, School of Emory University, pp-117.
- Rosly, S. A., & Bakar, M. A. A. (2003). Performance of Islamic and mainstream banks in Malaysia", *International Journal of Social Economics*, Vol 30(12), 1249-1265.
- Rozzani, N., & Rahman, R. A. (2013). Camels and Performance Evaluation of Banks in Malaysia: Conventional Versus Islamic. *Journal of Islamic Finance and Business Research*, Vol 2(1), 36 -45.
- Sahari, S., & Ubaidillah, N. K. (2017). Malaysian Islamic banks performance vs. internal and external characteristics. *Journal of Advanced Research in Business and Management Studies*, Vol 9(1), 45-53.
- Saona, P.H. (2011). Determinants of the profitability of the U.S banking industry. *International Journal of Business and Science*, Vol 2(22), 255-269.
- Sarkar, S. K., & Rana, S. (2010). Collinearity diagnostics of binary logistic regression model. *Journal of Interdisciplinary Mathematics*, Vol 13(3), 253-267.



- Sekaran, U. (2008). *Research methods for business: a skill building approach*. (4thEd.). London: John Wiley & Sons.
- Siddiqi, M.N. (2001). Recent history of Islamic banking and finance. *Islamic Economic Studies*. Vol 13(2), 1-48.
- Siddique, M.A., Khaleequzzaman, M. & Rehman, A. U. (2016). Determinants of Islamic Banking Industry's Profitability in Pakistan for the Period 2004-2012. *Journal of Islamic Business and Management*, Vol 6(1), 41-61.
- Shafana, M. (2015). Liquidity and Profitability of Financial Institutions in Sri Lanka. *International Journal of Science and Research*. Vol 4(6), 589-593.
- Sufian, F. (2006). Size and Returns to Scale of The Islamic Banking Industry in Malaysia: Foreign Versus Domestic Banks. *IJUM Journal of Economics and Management*, Vol 14(2), 147-175.
- Sufian, F. (2008). The Sources and Determinants of Productivity Growth in The Malaysian Islamic Banking Sector: A Nonstochastic Frontier Approach. *International Journal of Accounting and Finance*, Vol 1(2), 193-219
- Sufian, F. (2010). Does foreign presence foster Islamic banks' performance? Empirical evidence from Malaysia. *Journal of Islamic Accounting and Business Research*, Vol 1(2), 128-147.
- The World Bank. (2018). GDP Growth Rate. Retrieved from <http://databank.worldbank.org/data/report.aspx?source=world-development-indicators#>.
- The World Bank. (2018). Inflation. Retrieved from <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators#>.
- Tulsian, M. (2014). Profitability Analysis (A comparative study of SAIL & TATA Steel). *IOSR Journal of Economics and Finance (IOSR-JEF)*. Vol 3(2), 19-22.
- Wahidudin, A. N., Subramanian, U., & Pg. Kamaluddin, P. A. M. (2017). Determinants of Profitability a Comparative Analysis of Islamic Banks and Conventional Banks in Asean Countries. *Journal of Engineering and Applied Sciences*, Vol 12(5), 1245-1249.
- Wasiuzzaman, S., & Gunasegavan, U. N. (2013). Comparative Study of the Performance of Islamic and Conventional Banks: The Case of Malaysia. *Humanomics*, Vol 29(1), 43-60.

- Yahya, M. H., Muhammad, J., & Abdul Hadi, A. R. (2012). A comparative study on the level of efficiency between Islamic and conventional banking systems in Malaysia. *International Journal of Islamic and Middle Eastern Finance and Management*, Vol 5(1), 48-62.
- Wasiuzzaman, S & Tarmizi, H. A. A. (2010). Profitability of Islamic Banks in Malaysia. *Journal of Islamic Economics, Banking and Finance*, Vol 6(4), 53-68.
- Yahaya, O. A., & Lamidi, Y. (2015). Empirical Examination of The Financial Performance of Islamic Banking in Nigeria: A Case Study Approach. *International Journal of Accounting Research*, Vol 2(7), 1-13.
- Yahya, M. H., Muhammad, J., & Abdul Hadi, A. R. (2012). A comparative study on the level of efficiency between Islamic and conventional banking systems in Malaysia. *International Journal of Islamic and Middle Eastern Finance and Management*, Vol 5(1), 48-62.
- Zikmund, W., Babin, B., Carr, J., & Griffin, M. (2010). *Business Research Methods*. South Western, Cengage Learning.
- Zsuzsanna, T., and Marian, L. (2012). Multiple regression analysis of performance indicators in the ceramic industry. *Procedia Economics and Finance*, Vol 3, 509 - 514.



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## APPENDICES

### APPENDIX I

#### List of Local Islamic Banks in Malaysia

No.	Name	Ownership
1	Affin Islamic Bank Berhad	Local
2	Alliance Islamic Bank Berhad	Local
3	AmBank Islamic Berhad	Local
4	Bank Islam Malaysia Berhad	Local
5	Bank Muamalat Malaysia Berhad	Local
6	CIMB Islamic Bank Berhad	Local
7	Hong Leong Islamic Bank Berhad	Local
8	Maybank Islamic Berhad	Local
9	Public Islamic Bank Berhad	Local
10	RHB Islamic Bank Berhad	Local

Sources: Bank Negara Malaysia, 2017

#### List of Foreign Islamic Banks in Malaysia

No.	Name	Ownership
1	Al Rajhi Banking & Investment Corporation (Malaysia) Berhad	Foreign
2	Asian Finance Bank Berhad	Foreign
3	HSBC Amanah Malaysia Berhad	Foreign
4	Kuwait Finance House (Malaysia) Berhad	Foreign
5	OCBC Al-Amin Bank Berhad	Foreign
6	Standard Chartered Saadiq Berhad	Foreign

Sources: Bank Negara Malaysia, 2017



## APPENDIX II

### Data for Local Islamic Banks in Malaysia

Islamic Bank	Code	Year	ROA	GDP	INF	CAR	ASQ	LQR	SIZE
Affin	1	2010	1.816	0.844	0.233	5.736	4.190	47.04	6.878
Affin	1	2011	1.585	0.724	0.505	4.572	3.850	41.53	7.022
Affin	1	2012	1.740	0.738	0.217	5.591	2.490	43.87	7.069
Affin	1	2013	1.551	0.672	0.322	5.718	2.150	49.05	7.091
Affin	1	2014	1.660	0.779	0.502	6.073	1.790	56.30	7.105
Affin	1	2015	1.732	0.701	0.318	7.138	1.530	68.74	7.127
Affin	1	2016	1.826	0.625	0.328	7.575	0.810	77.94	7.184
Alliance	2	2010	3.828	0.844	0.233	8.531	1.330	69.53	6.689
Alliance	2	2011	2.773	0.724	0.505	7.519	1.510	63.92	6.794
Alliance	2	2012	3.095	0.738	0.217	8.406	1.560	68.25	6.813
Alliance	2	2013	2.685	0.672	0.322	8.682	1.870	67.61	6.834
Alliance	2	2014	2.255	0.779	0.502	8.471	1.520	67.67	6.869
Alliance	2	2015	1.905	0.701	0.318	7.146	0.730	71.14	6.964
Alliance	2	2016	1.739	0.625	0.328	8.302	1.540	71.39	6.991
AmBank	3	2010	3.695	0.844	0.233	7.774	1.520	68.31	7.236
AmBank	3	2011	2.592	0.724	0.505	6.922	2.330	65.61	7.305
AmBank	3	2012	2.748	0.738	0.217	7.187	1.250	77.43	7.378
AmBank	3	2013	2.300	0.672	0.322	6.543	1.190	67.64	7.512
AmBank	3	2014	2.073	0.779	0.502	6.679	1.390	69.42	7.547
AmBank	3	2015	1.895	0.701	0.318	6.076	2.160	69.24	7.599
AmBank	3	2016	2.242	0.625	0.328	6.921	2.180	71.51	7.583
BIMB	4	2010	4.425	0.844	0.233	8.322	4.500	39.05	7.482
BIMB	4	2011	3.340	0.724	0.505	8.649	2.610	43.90	7.508
BIMB	4	2012	3.434	0.738	0.217	8.276	1.550	52.09	7.573
BIMB	4	2013	3.384	0.672	0.322	7.772	1.180	55.42	7.632
BIMB	4	2014	3.281	0.779	0.502	8.140	1.950	64.42	7.661
BIMB	4	2015	3.040	0.701	0.318	8.104	1.090	68.91	7.697
BIMB	4	2016	2.944	0.625	0.328	7.877	0.980	70.37	7.746
BMMB	5	2010	2.617	0.844	0.233	7.885	7.300	39.65	7.223
BMMB	5	2011	2.683	0.724	0.505	7.434	5.040	39.13	7.263
BMMB	5	2012	2.326	0.738	0.217	6.979	4.700	44.20	7.311
BMMB	5	2013	2.810	0.672	0.322	7.574	2.500	49.17	7.324
BMMB	5	2014	3.020	0.779	0.502	8.678	2.500	59.30	7.302
BMMB	5	2015	2.270	0.701	0.318	8.218	2.480	59.80	7.351
BMMB	5	2016	2.345	0.625	0.328	8.781	2.210	64.11	7.355
CIMB	6	2010	1.757	0.844	0.233	3.715	1.480	62.22	7.557
CIMB	6	2011	1.786	0.724	0.505	4.475	1.210	65.14	7.634
CIMB	6	2012	1.968	0.738	0.217	4.575	0.910	64.56	7.709
CIMB	6	2013	2.018	0.672	0.322	5.404	0.870	70.96	7.694
CIMB	6	2014	2.033	0.779	0.502	6.440	1.250	72.79	7.698
CIMB	6	2015	1.927	0.701	0.318	6.609	1.040	73.91	7.737



CIMB	6	2016	1.812	0.625	0.328	6.227	0.980	70.78	7.824
Hong Leong	7	2010	1.849	0.844	0.233	8.219	0.860	41.54	6.998
Hong Leong	7	2011	1.368	0.724	0.505	7.108	0.730	44.15	7.086
Hong Leong	7	2012	1.555	0.738	0.217	5.414	4.700	54.84	7.340
Hong Leong	7	2013	2.250	0.672	0.322	6.226	2.500	61.44	7.337
Hong Leong	7	2014	2.211	0.779	0.502	7.067	2.680	65.66	7.338
Hong Leong	7	2015	1.861	0.701	0.318	7.085	2.480	68.65	7.367
Hong Leong	7	2016	1.785	0.625	0.328	7.080	2.210	72.17	7.409
Maybank	8	2010	2.178	0.844	0.233	7.467	2.690	75.66	7.645
Maybank	8	2011	1.845	0.724	0.505	5.445	1.550	60.71	7.878
Maybank	8	2012	2.058	0.738	0.217	4.971	0.840	67.05	7.961
Maybank	8	2013	1.847	0.672	0.322	5.146	0.330	68.87	8.097
Maybank	8	2014	1.784	0.779	0.502	4.938	0.620	73.58	8.166
Maybank	8	2015	1.846	0.701	0.318	5.287	0.670	83.25	8.194
Maybank	8	2016	1.726	0.625	0.328	4.999	0.990	81.69	8.260
Public	9	2010	2.987	0.844	0.233	7.673	0.980	69.05	7.374
Public	9	2011	2.683	0.724	0.505	7.189	0.890	65.29	7.469
Public	9	2012	2.710	0.738	0.217	7.807	0.860	68.83	7.467
Public	9	2013	2.136	0.672	0.322	7.517	0.900	66.44	7.537
Public	9	2014	1.942	0.779	0.502	6.950	0.900	66.66	7.582
Public	9	2015	1.664	0.701	0.318	6.491	0.660	69.51	7.660
Public	9	2016	1.802	0.625	0.328	7.219	0.600	74.97	7.696
RHB	10	2010	1.800	0.844	0.233	7.510	6.950	66.45	7.118
RHB	10	2011	1.297	0.724	0.505	5.884	4.290	56.18	7.355
RHB	10	2012	1.558	0.738	0.217	6.613	2.510	62.48	7.408
RHB	10	2013	1.533	0.672	0.322	6.959	2.310	63.28	7.464
RHB	10	2014	1.470	0.779	0.502	6.237	1.300	69.96	7.558
RHB	10	2015	1.309	0.701	0.318	5.664	1.170	70.08	7.644
RHB	10	2016	1.421	0.625	0.328	6.086	1.150	70.33	7.682
<b>Data for Foreign Islamic Banks in Malaysia</b>									
Islamic Banks	Code	Year	ROA	GDP	INF	CAR	ASQ	LQR	SIZE
Al-Rajhi	1	2010	2.22	0.844	0.233	12.26	2.15	68.43	6.772
Al-Rajhi	1	2011	2.52	0.724	0.505	12.30	1.66	60.40	6.789
Al-Rajhi	1	2012	2.45	0.738	0.217	10.38	1.99	62.49	6.837
Al-Rajhi	1	2013	2.47	0.672	0.322	10.60	1.57	70.84	6.830
Al-Rajhi	1	2014	2.29	0.779	0.502	9.91	1.26	65.67	6.862
Al-Rajhi	1	2015	2.48	0.701	0.318	10.01	1.51	68.12	6.864
Al-Rajhi	1	2016	2.17	0.625	0.328	8.80	1.24	71.45	6.924
Asian Finance	2	2010	0.79	0.844	0.233	17.15	6.91	32.16	9.351
Asian Finance	2	2011	1.76	0.724	0.505	19.55	5.17	38.41	9.387
Asian Finance	2	2012	1.19	0.738	0.217	16.78	3.81	52.68	9.449
Asian Finance	2	2013	1.41	0.672	0.322	16.40	2.14	56.79	9.463

Asian Finance	2	2014	1.56	0.779	0.502	17.23	0.74	60.73	9.457
Asian Finance	2	2015	1.40	0.701	0.318	19.48	0.87	57.66	9.403
Asian Finance	2	2016	1.38	0.625	0.328	20.25	8.29	59.32	9.390
HSBC	3	2010	3.30	0.844	0.233	11.62	1.49	68.65	6.830
HSBC	3	2011	2.79	0.724	0.505	8.63	1.59	74.55	7.019
HSBC	3	2012	3.07	0.738	0.217	8.56	1.49	69.85	7.084
HSBC	3	2013	2.75	0.672	0.322	8.08	1.79	63.00	7.163
HSBC	3	2014	2.56	0.779	0.502	8.05	1.5	64.14	7.214
HSBC	3	2015	1.98	0.701	0.318	7.51	1.93	61.92	7.286
HSBC	3	2016	2.05	0.625	0.328	9.33	2.53	72.04	7.212
KFH	4	2010	0.28	0.844	0.233	18.56	12.02	55.75	7.037
KFH	4	2011	-4.33	0.724	0.505	14.22	23.23	51.33	7.005
KFH	4	2012	3.40	0.738	0.217	16.80	15.63	58.95	6.953
KFH	4	2013	3.98	0.672	0.322	16.77	10.6	63.96	6.973
KFH	4	2014	3.28	0.779	0.502	16.21	7.4	64.53	7.017
KFH	4	2015	1.13	0.701	0.318	15.44	7.43	65.87	7.027
KFH	4	2016	1.36	0.625	0.328	14.96	6.97	60.11	7.034
OCBC	5	2010	2.85	0.844	0.233	6.84	1.78	57.76	6.634
OCBC	5	2011	2.46	0.724	0.505	5.79	1.46	0.24	6.758
OCBC	5	2012	2.64	0.738	0.217	6.78	1.26	0.08	6.843
OCBC	5	2013	2.70	0.672	0.322	5.88	1.56	66.79	7.005
OCBC	5	2014	1.97	0.779	0.502	5.77	2.1	67.07	7.136
OCBC	5	2015	2.52	0.701	0.318	6.75	2.81	67.67	7.165
OCBC	5	2016	2.53	0.625	0.328	7.41	3.01	63.07	7.183
SC	6	2010	3.43	0.844	0.233	10.86	0.94	57.52	6.610
SC	6	2011	2.44	0.724	0.505	7.84	0.63	48.00	6.775
SC	6	2012	2.37	0.738	0.217	7.42	0.84	53.71	6.865
SC	6	2013	2.00	0.672	0.322	6.70	0.67	61.52	6.914
SC	6	2014	1.45	0.779	0.502	5.78	0.53	73.24	6.986
SC	6	2015	1.38	0.701	0.318	5.09	0.54	59.41	7.054
SC	6	2016	1.79	0.625	0.328	6.61	0.85	71.99	6.962

### APPENDIX III

#### Results of Descriptive Analysis for Local Islamic Banks in Malaysia

Date: 03/27/18 Time: 10:40

Sample: 2010-2016

	ROA	GDP	INF	CAR	ASQ	LQR	SIZE
Mean	2.220424	0.726105	0.346385	6.856415	1.950571	63.45807	7.428029
Median	1.993144	0.723784	0.321598	7.073246	1.520000	66.85914	7.436467
Maximum	4.424920	0.843918	0.505150	8.780532	7.300000	83.25187	8.259581
Minimum	1.296615	0.625210	0.216694	3.714558	0.330000	39.05637	6.688578
Std. Dev.	0.664013	0.066552	0.108150	1.215834	1.414365	10.80921	0.340030
Skewness	1.055545	0.286801	0.468414	-0.430242	1.863716	-0.856813	0.097155
Kurtosis	3.702229	2.347068	1.789574	2.406592	6.628335	2.915749	2.940740
Jarque-Bera	14.43689	2.107726	6.823110	3.486652	78.62082	8.585544	0.120366
Probability	0.000733	0.333250	0.032825	0.203248	0.000000	0.013667	0.941592
Sum	155.4297	50.82733	24.24697	479.9491	136.5400	4442.065	519.9620
Sum Sq. Dev.	30.42298	0.305614	0.807060	101.9995	138.0296	8061.899	7.977816
Observations	70	70	70	70	70	70	70

#### Results of Descriptive Analysis for Foreign Islamic Banks in Malaysia

Date: 03/27/18 Time: 10:28

Sample: 2010-2016

	ROA	GDP	INF	CAR	ASQ	LQR	SIZE
Mean	2.053291	0.726105	0.346385	11.22282	3.664048	58.75900	7.369527
Median	2.329079	0.723784	0.321598	9.962747	1.720000	62.20315	7.011001
Maximum	3.980700	0.843918	0.505150	20.24623	23.23000	74.55017	9.462868
Minimum	-4.326682	0.625210	0.216694	5.088197	0.530000	0.080353	6.609763
Std. Dev.	1.268091	0.066876	0.108677	4.656791	4.620292	15.80186	0.937592
Skewness	-3.038612	0.286001	0.468414	0.485061	2.504375	-2.559127	1.688547
Kurtosis	16.42370	2.347068	1.789574	1.821939	9.669297	9.840882	4.028195
Jarque-Bera	379.9748	1.318635	4.099866	4.075685	121.7424	127.7398	21.80842
Probability	0.000000	0.517204	0.128744	0.130310	0.000000	0.000000	0.000018
Sum	86.23821	30.49640	14.54818	471.3585	153.8900	2467.878	309.5201
Sum Sq. Dev.	65.93028	0.183368	0.484236	889.1139	875.2310	10237.65	36.04225
Observations	42	42	42	42	42	42	42



# APPENDIX IV

## Result of the Multiple Regression for Local Islamic Banks in Malaysia

Dependent Variable: ROA

Method: Panel EGLS (Cross-section weights)

Date: 03/27/18 Time: 10:39

Sample: 2010 2016

Periods included: 7

Cross-sections included: 10

Total panel (balanced) observations: 70

Linear estimation after one-step weighting matrix

White cross-section standard errors & covariance (d.f. corrected)

WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.774710	3.383155	1.411319	0.1639
GDP	1.077749	0.424095	2.541290	0.0139
INF	-0.357238	0.134589	-2.654287	0.0104
CAR	0.122655	0.049454	2.480189	0.0163
ASQ	-0.031848	0.021283	-1.496439	0.1404
LQR	-0.001896	0.004698	-0.403533	0.6881
SIZE	-0.521224	0.410493	-1.269749	0.2096

## Effects Specification

Cross-section fixed (dummy variables)

## Weighted Statistics

R-squared	0.854296	Mean dependent var	2.618284
Adjusted R-squared	0.813823	S.D. dependent var	0.848829
S.E. of regression	0.305817	Sum squared resid	5.050289
F-statistic	21.10770	Durbin-Watson stat	1.024459
Prob(F-statistic)	0.000000		

## Unweighted Statistics

R-squared	0.786414	Mean dependent var	2.220424
Sum squared resid	6.497920	Durbin-Watson stat	0.848424



## APPENDIX V

### Result of the Multiple Regression for Foreign Islamic Banks in Malaysia

Dependent Variable: ROA

Method: Panel EGLS (Cross-section weights)

Date: 03/27/18 Time: 10:25

Sample: 2010 2016

Periods included: 7

Cross-sections included: 6

Total panel (balanced) observations: 42

Linear estimation after one-step weighting matrix

White cross-section standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.870641	1.559244	5.689064	0.0000
GDP	-1.225908	0.807595	-1.517974	0.1395
INF	-0.520713	0.227848	-2.285357	0.0295
CAR	0.273943	0.027211	10.06740	0.0000
ASQ	-0.176101	0.083424	-2.110914	0.0432
LQR	0.002827	0.001941	1.456406	0.1557
SIZE	-1.131976	0.175418	-6.453025	0.0000

#### Effects Specification

Cross-section fixed (dummy variables)

#### Weighted Statistics

R-squared	0.858700	Mean dependent var	6.137473
Adjusted R-squared	0.806890	S.D. dependent var	4.509431
S.E. of regression	0.817590	Sum squared resid	20.05362
F-statistic	16.57405	Durbin-Watson stat	1.402942
Prob(F-statistic)	0.000000		

#### Unweighted Statistics

R-squared	0.582416	Mean dependent var	2.053291
Sum squared resid	27.53140	Durbin-Watson stat	1.684558